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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/412,947 10/05/99 AGRAWAL

S HYZ-050CP2

EXAMINER

HM22/0620

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EPPS..J	
ART UNIT	PAPER NUMBER

1635

DATE MAILED:

06/20/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/412,947	Applicant(s) AGRAWAL, SUDHIR	
	Examiner Janet L. Epps	Art Unit 1635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☒ The proposed drawing correction filed on 30 March 2001 is: a) ☒ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|--|--|
| 15) <input type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>13</u> . | 20) <input type="checkbox"/> Other: |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

2. The formal drawing received 3-30-01 have been approved by the Draftsperson.

Response to Arguments

3. Applicant's request for benefit of the earlier filing date of application 08/532,979, September 22, 1995, is not granted. As stated in the prior Office action the disclosure of 08/532,979 does not provide sufficient support for the method claimed in the instant application.

According to Applicants, the disclosure of application 08/532,979 combined with other well-known cancer therapies provides sufficient support for the methods of the instant application. Additionally, Applicants argue that the cancer therapies used in the methods of the instant application, specifically the use of an antibody that binds to EGFR or a cytotoxic agent selected from the group consisting of taxanes, platinum-derived agents, and topoisomerase II-selective drugs, can be found as entries in Stedman's Medical Dictionary (26th ed. 1995) or are discussed for, example, at page 1311 of Goldstein et al. (1995). However, Applicant's specification does not provide any reference to these specific cancer therapies in the parent application, and furthermore Applicants do not provide any rationale with regards to why these specific cancer therapies would be selected over other well-known cancer therapy treatments.

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As stated previously, the disclosure of the invention in the parent application and in the continuing application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *In re Ahlbrecht*, 168 USPQ 293 (CCPA 1971).

4. Claims 1-33 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for inhibiting proliferation of cancer cells *in vitro*, does not reasonably provide enablement for treatment of cancer in a patient *in vivo*. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims, for the reasons of record in the Official Action mailed 10-24-2000.

Applicant's arguments filed 3-31-01 have been fully considered but they are not persuasive. Applicants traverse the instant rejection on the grounds that Example 27, 28 and 29 and Figures 16-18 provide examples and data indicating that the claimed invention works *in vivo*. However, contrary to Applicant's assertions the examples and figures provided in the instant application do not provide sufficient enablement for one of skill in the art to practice the full scope of the claimed invention without undue experimentation. The examples provided in the specification as filed reads on the administration of a specific hybrid oligonucleotide, HYB 165 in combination with specific chemotherapeutic agents. However, the instant claims broadly read on treating cancer comprising any hybrid, inverted hybrid, or inverted chimeric modified oligonucleotide that is complementary to nucleic acid encoding PKA R1 α , administered in combination or sequentially with a second agent comprising an antibody that binds to EGFR or a cytotoxic agent selected from taxanes, platinum-derived agents, and topoisomerase II-

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selective drugs. Additionally, the instant claims read on a method wherein the oligonucleotide of the invention "consists essentially of the nucleotide sequence set forth in SEQ ID NO:4," since the exact nature of the nucleotide sequence used in this method is ambiguous, it is unclear what other sequences are encompassed within the genus of nucleotide sequences "consisting essentially of the nucleotide sequence set forth in SEQ ID NO:4." As stated in the previous Office Action Crooke describes a variety of factors which influence cellular uptake and distribution of antisense base therapeutics, which include: length of the oligonucleotide, modifications, sequence of oligonucleotide and cell type. Due to the unpredictability in cellular behavior associated with variations in sequence, length, and modifications of the oligonucleotides encompassed by the present invention, it is likely that the examples comprising the use of the HYB 165 oligonucleotide are not representative of all oligonucleotides encompassed by the claimed invention. Applicants have not provided a clear nexus between the use of the HYB 165 oligonucleotide and the use of all oligonucleotides encompassed by the methods of the claimed invention. Applicant's arguments do not take the place of evidence. The instant claims remain rejected under 35 USC 112, first paragraph since the specification as filed does not provide sufficient guidance and/or instruction that would allow one of skill in the art to practice the full scope of the claimed invention without undue experimentation. This conclusion is based upon the known unpredictability regarding the delivery and behavior of antisense *in vivo* and further with the production of secondary effects such as treating a disease associated with the

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expression of a gene, the lack of guidance provided in the specification as filed in this regard, and the breadth of the claimed invention.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet L Epps whose telephone number is 703-308-8883. The examiner can normally be reached on Mondays through Friday, 9:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John LeGuyader can be reached on (703)-308-0447. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-746-5143 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Janet L Epps
Examiner
Art Unit 1635

jle
June 15, 2001


ANDREW WANG
PRIMARY EXAMINER